



L-2013-178
10 CFR § 50.73
May 22, 2013

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

Re: Turkey Point Unit 4
Docket No. 50-251
Reportable Event: 2013-001-00
Power Operated Relief Valve Inoperable for Greater Than Allowed Outage Time Due to Lifted Leads

The attached Licensee Event Report 05000251/2013-001-00 is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the Technical Specifications.

If there are any questions, please call Mr. Robert J. Tomonto at 305-246-7327.

Very truly yours,

Michael Kiley
Vice President
Turkey Point Nuclear Plant

Attachment

cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, Turkey Point Nuclear Plant

JE22
URL

NRC FORM 366 (10-2010)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0104		EXPIRES: 10/31/2013																																									
LICENSEE EVENT REPORT (LER)																																															
1. FACILITY NAME Turkey Point Unit 4				2. DOCKET NUMBER 05000251		3. PAGE 1 of 3																																									
4. TITLE Power Operated Relief Valve Inoperable for Greater Than Allowed Outage Time Due to Lifted Leads																																															
5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED																																						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME		DOCKET NUMBER																																				
3	23	2013	2013	- 001	- 00	5	22	2013	FACILITY NAME		DOCKET NUMBER																																				
9. OPERATING MODE <div style="text-align: center; font-size: 1.2em;">5</div>			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply) <table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> 20.2201(b)</td> <td><input type="checkbox"/> 20.2203(a)(3)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(C)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> </tr> <tr> <td><input type="checkbox"/> 20.2201(d)</td> <td><input type="checkbox"/> 20.2203(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(1)</td> <td><input type="checkbox"/> 20.2203(a)(4)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(i)</td> <td><input type="checkbox"/> 50.36(c)(1)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ix)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(ii)</td> <td><input type="checkbox"/> 50.36(c)(1)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iv)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iii)</td> <td><input type="checkbox"/> 50.36(c)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(A)</td> <td><input type="checkbox"/> 73.71(a)(4)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iv)</td> <td><input type="checkbox"/> 50.46(a)(3)(ii)0</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(B)</td> <td><input type="checkbox"/> 73.71(a)(5)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(C)</td> <td><input type="checkbox"/> OTHER</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(vi)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(D)</td> <td></td> </tr> </table>									<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)0	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	
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10. POWER LEVEL <div style="text-align: center; font-size: 1.2em;">0</div>																																															
12. LICENSEE CONTACT FOR THIS LER																																															
NAME <div style="text-align: center; font-size: 1.1em;">Paul F. Czaya</div>									TELEPHONE NUMBER (Include Area Code) <div style="text-align: center; font-size: 1.1em;">305-246-7150</div>																																						
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																																															
CAUSE	SYSTEM	COMPONENT	MANU- FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU- FACTURER	REPORTABLE TO EPIX																																						
14. SUPPLEMENTAL REPORT EXPECTED						15. EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR																																					
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)						<input checked="" type="checkbox"/> NO																																									
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) <p>On March 23, 2013 with Unit 4 in Mode 5, while restoring Residual Heat Removal (RHR) System interlocks, it was discovered that an isolation signal was present due to two lifted leads, which also rendered one power operated relief valve (PORV) inoperable. As result, one of two required PORVs for the Overpressure Mitigating Systems (OMS) was inoperable for a period exceeding the Technical Specification (TS) allowed outage time, which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by TS. The root cause is inadequate procedure compliance by supplemental personnel during performance of a modification. Also, the review to establish PORV operability for OMS credited a surveillance requirement that was current but performed prior to the lifting of the leads. Corrective actions include: 1) Revising site training for supplemental personnel to better emphasize the importance of configuration management and the procedural controls employed to maintain it, 2) Revising the alarm response procedure for a related annunciator to include a check that fuses for OMS PORVs are installed and control power to pressure comparators is in service, 3) Verifying status of PORV actuation instrumentation prior to declaring OMS operable.</p>																																															

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NARRATIVE

DESCRIPTION OF THE EVENT

On March 23, 2013 at approximately 2245, with Unit 4 in Mode 5, while restoring Residual Heat Removal (RHR) System [BP] interlocks, RHR loop suction stop valve [BP, ISV] MOV-4-750 commenced closing. The MOV-4-750 breaker [BP, ISV, BKR] was promptly opened and the valve was deenergized in an intermediate position. RHR pump [BP, P] operation and flow were verified stable.

Following the event, it was determined that MOV-4-750 commenced closing because an isolation signal was present. The isolation signal was present because control power was removed from the instrumentation due to two lifted leads [CBL4]. The lifted leads also removed control power to the pressure comparator [AB, PIC] circuit for power operated relief valve (PORV) [AB, RV] PCV-4-456 rendering it inoperable.

In Mode 5, Technical Specification (TS) Limiting Condition for Operation 3.4.9.3 for Overpressure Mitigating Systems (OMS) requires high pressure safety injection [BQ] flow paths to be isolated, and either two operable PORVs or a Reactor Coolant System (RCS) [AB] vent path of at least 2.20 square inches. With one PORV inoperable, TS 3.4.9.3, Action c, requires operability to be restored within 24 hours or a vent path established within the next 8 hours. The removed pressurizer safety valve [AB, PZR, RV] providing the vent path was installed on March 10, 2013 at approximately 1020. Control power to PCV-4-456 was removed on or about February 23, 2013. Control power was restored and PCV-4-456 declared operable at approximately 2145 on March 24, 2013. As a result, one PORV was inoperable for a period of approximately 14 days and 11 hours without the required RCS vent path exceeding the total allowed outage time of 32 hours.

Because one PORV was inoperable for a time greater than allowed by the TS without a RCS vent path, this event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by TS.

CAUSE OF THE EVENT

The root cause is inadequate procedure compliance by supplemental personnel during performance of a modification. Also, the review to establish PORV operability for OMS credited a Surveillance Requirement (SR) that was current but performed prior to the lifting of the leads.

ANALYSIS OF THE EVENT

The OMS is designed to protect the RCS from over-pressurization due to the start of an idle reactor coolant pump [AB, P] with steam generator [SB, SG] water temperature 50°F above RCS cold leg temperature, or a single high head safety injection (HHSI) pump injecting into a water solid RCS.

The OMS system was placed in service on March 9, 2013 using the normal operating procedure. The procedure checks switch, valve and nitrogen alignment, and also checks if SRs are current. Performance of the surveillance procedure would have identified the issue with OMS operability due to the lifted leads.

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However, the surveillance procedure had been satisfactorily completed on February 16, 2013 and the SR was current at the time OMS was placed in service.

The leads were lifted by supplemental personnel during the performance of an engineering change, were not controlled, and were not relanded.

ANALYSIS OF SAFETY SIGNIFICANCE

During the period one PORV was inoperable (PCV-4-456) a second PORV (PCV-4-455C) was operable and available in the event the OMS was required. Furthermore, HHSI isolation was maintained through clearance and procedural control. As such, the Unit 4 RCS was protected from an inadvertent overpressure event. As a result, the safety significance of this event is very low.

CORRECTIVE ACTIONS

Corrective actions are documented in AR 1868533 and include the following:

1. Update site training for supplemental personnel to better emphasize the importance of configuration management and the procedural controls employed to maintain it.
2. Revise the alarm response procedure for a related annunciator to include a check that fuses for OMS PORVs are installed and control power to pressure comparators is in service.
3. Verify status of PORV actuation instrumentation prior to declaring OMS operable.

FAILED COMPONENTS IDENTIFIED: None

PREVIOUS SIMILAR EVENTS: None

ADDITIONAL INFORMATION

EIIS codes are shown in the format [IEEE system identifier, component function identifier, second component function identifier (if appropriate)].